

Port
Claim 26 (amended) The identification tag of claim 3, wherein the integrated circuit contains test and monitoring component points, [pads controls and circuits] pad components, control components and circuit components.

REMARKS

As noted above, claims 1 and 3 - 26 are pending in this application and have been rejected. The following comments follow the order of the Office Action beginning at page 2 thereof.

Response to Amendment

Applicant has canceled claim 2 in response to the restriction requirement.

Still further, the Serial Number on the header of this filed paper has been corrected to read 09/396,352. This error, noted by the Examiner, is appreciated.

Claim Objections

The objection to claims 5, 8 and 23 has been noted and appropriate changes have been made in claims 5 and 8. Claim 23 has been canceled.

Claim Rejections -- 35 U.S.C. § 112

These claims have been each amended to eliminate the term "such as." Still further, the Examiner should note that these claims now use the words "consisting."

Claim Rejections --- 35 U.S.C. § 102

Applicant has noted the rejection of claims 3 - 10, 12, 13, 22 under 35 U.S.C. § 102. In response, the independent claims have

all been amended to overcome the Cofino reference. Applicant has amended the claims to require that all components be located on the die.

Claim Rejections -- 35 U.S.C. § 103

The Examiner has rejected claims 11, 16, 19, and 23 - 26 under 35 U.S.C. § 103 as being unpatentable over Cofino.

Initially the Examiner should note that claim 23 has been canceled. Claim 23 referred to the placement of all circuits, capacitors and antennas built onto the same integrated circuit. The claims as now amended refer to each item as a component and the independent claims 1 and 3 each require that all components be located on the die. For purposes of use of terminology, Applicant understands that the term die in integrated circuit and chip are synonymous.

The Examiner rejected claim 23 over Cofino and stated that while Cofino does not specifically disclose that all circuits are built onto the same integrated circuit, that the Examiner finds it obvious lines 3 - 4 of column 2 suggest that a single integrated circuit should be used to contain all elements. The Examiner then "considers the antenna to be part of the chip." Reference to Cofino '082 shows that the following statement is made:

"However, to substantially reduce the cost of tags, a single chip connected to an antenna must be used." (column 2, lines 3-4)

It is therefore clear beyond question that the antenna component of the Cofino tag is located off of the die or chip. Cofino teaches nothing which would enable placement of the antenna

on the die or chip, and provides no suggestion that such a step can be taken.

In column 1, lines 15 - 50 the prior art antennas are also discussed. These prior art antennas are disclosed as including antennas on the tag, but there is no disclosure of or suggestion of any reason to reduce the antenna down and place it on the die as Applicant claims.

The Examiner argues "since the antenna must be connected to the chip for operation, the antenna can be considered as part of the chip." Applicant in the amended claims requires that the antenna be a component of the chip and located on the chip or die. This clearly defines over the art of record and the Examiner's argument that an antenna can be considered part of the chip is no longer applicable. With respect to the difficulties in placement of the antenna on the chip, only Applicant teaches how to do it. Specifically, the Examiner is referred to the specification at pages 42 - 45 which discuss chip-placed antennas and the difficulties and solutions to this problem. The prior art in not teaching or enabling such placement simply cannot be used either to anticipate nor render obvious. The prior art, lacking this element of the claims as now amended, clearly falls short of the requirement that the prior art include all of the elements of the claims.

Additional Discussion of Specific ClaimsClaim 4

Claim 4 sets forth the capacitor element which stores radio wave energy received by the antenna. Here, it should be noted that the capacitor cited by the Examiner is one used for a signal control, and is not a storage capacitor. These capacitors clearly have to be separate because when the circuit is operated to create a signal, the same capacitor cannot also be used to hold a charge to power the circuit.

Claim 10

Once again Applicant sets forth a combination of the antenna for transmitting and the capacitor component for storage of energy. The use of the capacitor to drive the antenna precludes the use of the capacitor as a signal capacitor like the one cited by the Examiner (see Cofino, column 4, lines 9 - 17 and Office Action, page 4, lines 4 and 5).

Claim 11

Claim 11 limits the sources to microwaves, infrared visible light and ultraviolet light. These sources of energy are very high frequency and, therefore, can be used with a small antenna as opposed to radio waves which require large antennas. Radio waves and large antennas, however, create a significant with the concept of placing the antenna on the die because a small antenna is required for the use of these short wave lengths. For this reason, such an antenna at such wave lengths is clearly patentable over the prior art of record.

Claim 1

Claim 1 requires first and second antennas be placed upon the die. The Cofino prior art refers to a single chip connected to "an antenna." Cofino does not recognize that 2 antennas may be used (1 for transmission and 1 for energy receipt). For this reason, the terms of claim 1 are not met, nor are they obvious. Still further, as pointed out above, claim 1 as now amended is clearly not obvious because the antennas are required to be down on the die, not merely on a tag.

In view of the foregoing, it is respectfully submitted that the application is now in condition for allowance, and early action in accordance thereof is requested. In the event there is any reason why the application cannot be allowed in this current condition, it is respectfully requested that the Examiner contact the undersigned at the number listed below to resolve any problems by Interview or Examiner's Amendment.

Respectfully submitted,



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